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10/597,138	07/24/2008	Ian Dampney	MATH 1002-1	6540
22470	7590	08/29/2011	EXAMINER	
HAYNES BEFFEL & WOLFELD LLP			GANESAN, SUNDHARA M	
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/597,138

**Applicant(s)**

DAMPNEY ET AL.

**Examiner**

SUNDHARA GANESAN

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 July 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 112-131 is/are pending in the application.
- 4a) Of the above claim(s) 128-130 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 112-127 and 131 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 July 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-940)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB08)  
Paper No(s)/Mail Date 8/4/2006, 9/3/2010
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Election/Restrictions*

1. Restriction is required under 35 U.S.C. 121 and 372.

2. This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

3. In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claim(s) 112-127 and 131, drawn to an environmental protection hood.

Group II, claim(s) 128-130, drawn to a breathing mask for use with an environmental hood.

4. The groups of inventions listed above do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: The special technical feature linking groups I and II is the environmental hood including a component for location inside the hood and a component outside the hood to provide services to the hood. Jones et al. (US Pat. 5,540,218) teaches that an environmental hood with components internal and external to the hood to provide services to the hood is known in the art, and it is therefore not a special technical feature.

5. During a telephone conversation with James Hann on 8/12/2011 a provisional election was made with traverse to prosecute the invention of group 1, claims 112-127 and 131. Affirmation of this election must be made by applicant in replying to this Office action. Claims 128-130 are withdrawn from

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further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 112-122 are rejected under 35 U.S.C. 102(b) as being anticipated by Jones et al. (US Pat. 5,540,218). Jones et al. describe the same invention as claimed, including: an environmental protection hood (116) comprising a manifold (22) having an element external to the hood for receiving supply of a plurality of services needed within the hood (Fig. 1, lines 46, 24, 64, 58 supply services to the hood), and an element internal to the hood, for providing those plurality of services where required (54, 20, 18).

Regarding claim 113, the external element has an inlet (72) for receiving a breathing supply and wherein the internal element is adapted for feeding a breathing mask (20).

Regarding claim 114, the external element has an inlet (68) for receiving a liquid.

Regarding claim 115, wherein the services include electrical wiring for communications (58).

Regarding claim 116, the internal element is adapted for feeding a demisting jet of air for demisting or inhibiting misting of a window of the hood and/or for ventilating the hood (32A).

Regarding claim 117, the internal element is adapted for feeding a demisting jet of air for demisting or inhibiting misting of a window of the hood and/or for ventilating the hood (32A) and wherein the external element has an inlet for receiving air disposed within the inlet for receiving a breathing supply or vice versa (74, 78).

Regarding claim 118, in combination with a supply conduit assembly comprising a breathing gas conduit (106), an air conduit (104) and a diverter (82) for diverting air from the air conduit to the breathing conduit if a supply of breathing gas is insufficient (Fig. 8).

Regarding claim 119, comprising a powered impeller (30) for increasing air pressure in the air conduit.

Regarding claim 120, wherein the air conduit comprises a filter (36) for removing contaminants from the air passing therethrough.

Regarding claim 121, wherein the diverter comprises a normally-closed valve between the breathing gas conduit and the air conduit (Fig. 8A).

Regarding claim 122, comprising a non-return valve (118) to prevent air flowing back from the hood when air is diverted to the breathing conduit.

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 123-125 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jones et al. (US Pat. 5,540,218) in view of Ansite et al. (US Pat. 5,467,766). Jones et al. describes the invention substantially as claimed, including the manifold comprising a breathing outlet port, and a valve (54, 56) associated with the outlet port. Jones et al. do not, however, expressly show that the valve opens when a wearer of the hood exhales, and has a mechanism operable by the wearer for closing the port when the wearer exhales (claim 123), the mechanism comprises a cover for the port, the cover being capable of being depressed or otherwise moved manually to close the port (claim 124), or the cover is so shaped as to be readily identifiable by touch (claim 125).

Ansite et al. teaches an exhalation valve that opens when the user exhales (col. 3, lines 16-21). The exhalation valve further has a mechanism operable by the wearer (38) for closing the port when the wearer exhales, the cover being capable of being depressed or otherwise moved manually to close the port (col. 4, lines 42-55), and the cover is shaped so as to be readily identifiable by touch (Fig. 2).

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At the time the invention was made, it would have been obvious to one having ordinary skill in the art to include an exhalation valve cover of the type taught by Ansite et al. on the device of Jones et al. The Ansite et al. exhalation valve cover allows a pilot to perform the Valsalva maneuver to ease ear pain caused by quick altitude changes. Since the Jones et al. hood is designed for use by crew members on flights; it would have therefore been obvious to include the Ansite et al. exhalation cover on the Jones et al. hood to allow users of the device to perform the Valsalva maneuver to ease discomfort caused by altitude changes.

10. Claims 126 and 127 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jones et al. (US Pat. 5,540,218) in view of Bonhomme (US Pat. 6,520,177). Jones et al. describe the invention substantially as claimed, but do not show a protective helmet having an outer shell and an inner cap, the hood being disposed between the shell and the cap (claim 126) and the hood has a window aperture, and location formations adjacent the aperture for engaging with the cap and the helmet (claim 127).

Bonhomme teaches an environmental protection hood disposed between the outer shell and the inner cap of a helmet (see Fig. 6), and the hood has a window aperture, and location formations (40, 46) adjacent the aperture for engaging with the cap and the helmet (Fig. 6).

At the time the invention was made, it would have been obvious to modify the Jones et al. device to include an outer helmet to cover the hood, and a

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window aperture with location formations to engage with the cap and helmet.

Doing so provides the predictable result of allowing the hood to be worn under protective helmets typically worn by air crew, and allowing the face mask and/or window aperture to be selectively couplable to the helmet for easy donning and doffing. Therefore, it would have been prima facie obvious to include the helmet, cap and window assembly taught by Bonhomme on the device of Jones et al. to allow the environmental protection hood of Jones et al. to interface with standard protective equipment worn by air crew.

11. Claim 131 is rejected under 35 U.S.C. 103(a) as being obvious over Jones et al. (US Pat. 5,540,218) in view of Ansite et al. (US Pat. 5,467,766). Jones et al describes the same invention as claimed, including: a breathing mask (20) having an outlet port, a valve (54, 56) associated with the outlet port. But Jones et al. does not expressly show that the exhalation valve opens when a wearer of the mask exhales, and means operable by the wearer for closing the port when the user exhales.

Ansite et al. teaches an exhalation valve that opens when the user exhales (col. 3, lines 16-21).

At the time the invention was made, it would have been obvious to include the exhalation valve arrangement taught by Ansite on the device of Jones et al. Doing so provides the predictable result of allowing the breathing mask to remain pressurized while permitting an outflow of exhaled air. Therefore, it would have



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been prima facie obvious to modify Jones et al. as taught by Ansite to obtain the invention as specified in claim 131 of the instant application.

### ***Conclusion***

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See form PTO-892 for cited art of interest.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to SUNDHARA GANESAN whose telephone number is (571)272-3340. The examiner can normally be reached on 10:00 am - 6:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, LoAn Thanh can be reached on (571) 272-4966. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/SUNDHARA GANESAN/  
Examiner, Art Unit 3764

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